

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application. Please amend the claims as follows:

Listing of Claims:

1. (Original) A method for transmitting Internet Key Exchange (IKE) data packets across a network comprising the steps of:
 - generating and transmitting an IKE packet over a network;
 - determining whether a response to the IKE packet was received;
 - fragmenting the IKE packet into a plurality of smaller packets when a response is not received, wherein each of the smaller packets includes a header formatted according to the IKE protocol; and
 - transmitting each of the plurality of smaller packets over a network.
2. (Original) The method of claim 1 wherein each header includes an identifier that may be used to associate the smaller packet with a corresponding IKE packet.
3. (Currently Amended) A network node that communicates with other network nodes according to the Internet Key Exchange (IKE) protocol comprising:
 - a User Datagram Protocol (UDP) stack that is capable of generating UDP data packets for transmission over a network;
 - an IKE protocol stack that generates IKE data packets that are subsequently processed by the UDP protocol stack; and
 - a fragmenter module that intercepts IKE data packets prior to being processed by [[to]] the UDP protocol stack and splits the IKE data packets into a plurality of smaller data packets that may be subsequently formatted by the UDP protocol stack;

wherein the fragmenter module does not split the IKE data packets unless no response to a previously-sent IKE data packet has been received; and

wherein [[,]] each of the plurality of smaller data packets includes a header formatted

according to the IKE protocol.

4. (Canceled)
5. (Canceled)
6. (Currently Amended) A method for receiving fragmented Internet Key Exchange (IKE) data packets comprising the steps of:
 - receiving a plurality of fragments of an IKE data packet from a transmitting node, wherein each fragment includes an identifier that associates each fragment with an IKE data packet; [[and]]
 - discarding all fragments that contain a first identifier if a predetermined number of fragments are received that contain a second identifier; and
 - determining the total size of all fragments that contain the same identifier and discarding said fragments when the total size exceeds a predetermined limit.
7. (Original) The method according to claim 6 wherein the step of discarding all fragments that contain a first identifier is performed when at least one fragment is received that contains a second identifier.
8. (Original) The method according to claim 6 further comprising the steps of:
 - determining whether all fragments that are associated with an IKE data packet have been received; and
 - sending a no acknowledgment (NAK) message to the transmitting node when at least one fragment has not been received.
9. (Canceled)
10. (Currently Amended) The method according to claim [[9]]_6 wherein the

predetermined limit is 64 kilobytes.

11. (Currently Amended) A system for transmitting Internet Key Exchange (IKE) protocol data packets across a network comprising:

means for generating an IKE packet;

means for initializing, operating, and monitoring a timer;

means for detecting whether the IKE packet was successfully received at the intended receiver node before the expiration of the timer; and

means for fragmenting the IKE packets into smaller packets when the IKE packet was not successfully received at the receiver node before the expiration of the timer, wherein each of the smaller packets includes information that permits a receiver node to identify the IKE packet associated with each smaller packet and the position of each smaller packet within the IKE packet.

12. (Original) The system of claim 11 further comprising means for determining the capability of the receiver node for receiving fragmented packets.

13. (Original) A method for transmitting data packets across a network comprising the steps of:

generating and transmitting an Internet Key Exchange (IKE) packet over a network;

determining whether a response to the IKE packet was received;

fragmenting the IKE packet into a plurality of smaller packets when a response is not received; and

transmitting each of the plurality of smaller packets over a network.

14. (Currently amended) The method of claim 13 wherein each of the plurality of smaller packets contains a header formatted according to the IKE protocol.

15. (Previously Presented) The method of claim 13 wherein the IKE packet

contains a header formatted according to the IKE protocol.

16. (Previously Presented) The method of claim 15 wherein the plurality of smaller packets contain the same information as that contained within the original IKE packet.

17. (Previously Presented) The method of claim 16 wherein at least one of the plurality of smaller packets contains the header formatted according to the IKE protocol.

18. (Currently Amended) A method for transmitting data packets across a network comprising the steps of:
generating a data packet containing Internet Key Exchange (IKE) information;
initializing a timer;
determining, based at least in part on the expiration of the timer, whether fragmentation of the data packet is necessary to successfully transmit the IKE information over a network; and
fragmenting the data packet if necessary into a plurality of smaller packets that may be transmitted over a network.
~~wherein the steps of generating, determining, and fragmenting are performed independently of performing any steps on the data packet corresponding to a transport layer protocol and/or a network layer protocol.~~

19. (Canceled)

20. (Currently Amended) A method for resolving transmitting errors associated with transmitting Inter Key Exchange (IKE) packets via protocol stacks that implement the Transmission Control Protocol (TCP), the User Datagram Protocol (UDP), and/or the Internet Protocol (IP) comprising the steps of:
generating a data packet containing IKE data;
initializing a timer;
determining, based at least in part on the expiration of the timer, whether it is necessary

to fragment the IKE data packet;

fragmenting the packet, if necessary, with a code module that does not implement the TCP, UDP, or IP protocols before the packet is processed by a code module that does implement the TCP, UDP or IP protocols; and

transmitting the fragmented packet over a network.

21. (Canceled)

22. (Currently Amended) A method for intelligently discarding fragmented Internet Key Exchange (IKE) data packets to efficiently manage resources comprising:

receiving a plurality of fragments of a single IKE data ~~packets~~ packet containing ~~Internet Key Exchange (IKE)~~ information, wherein the ~~packets~~ fragments were transmitted from a transmitting node in ~~[[a]]~~ an order that can be determined from information contained within the received ~~data-packets~~ fragments;

determining from information contained within the received ~~data-packets~~ fragments whether any of the received ~~packets~~ fragments have been received in an order that differs from the order in which the ~~packets~~ fragments were transmitted from the transmitting node; and

discarding at least certain of the received ~~packets~~ fragments when a predetermined number of out of order ~~packets~~ fragments from a single IKE data packet have been received.

23. (Previously Presented) The method of claim 22 further including the step of sending a message to the transmitting node that out of order packets have been received.